

AMENDMENTS TO THE CLAIMS

(IN REVISED FORMAT COMPLIANT WITH THE PROPOSED

REVISION TO 37 CFR 1.121)

Please cancel claim 2 without prejudice.

1. (CURRENTLY AMENDED) An apparatus comprising:

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5 a ~~first~~ voltage generator circuit configured in response to a feedback signal to (i) generate a reference output voltage in response to a plurality of reference voltages and (ii) switch between said plurality of reference voltages; and

a ~~second~~ comparator circuit configured to generate an output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises accurately controlled hysteresis.

2. (CANCELED)

3. (CANCELED)

4. (CANCELED)

5. (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said feedback signal comprises said output voltage.

6. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said ~~first~~ voltage generator circuit is further configured to provide substantial immunity against voltage, process and temperature variations.

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7. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said ~~first~~ voltage generator circuit comprises:

a bandgap reference circuit;

a voltage reference circuit configured to generate said
5 plurality of reference voltages; and

a reference switch circuit configured to switch between said plurality of reference voltages to generate said output voltage.

8. (ORIGINAL) The apparatus according to claim 7, wherein said bandgap reference circuit comprises:

a process/compensation circuit;

a reference circuit; and

5 a summation circuit configured to control said voltage reference circuit in response to signals from said process compensation circuit and said reference circuit.

9. (ORIGINAL) The apparatus according to claim 7, wherein said voltage reference circuit comprises:

a plurality of current sources configured to generate
said plurality of reference voltages; and

5 a plurality of resistors each coupled to at least one of
said plurality of current sources.

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10. (ORIGINAL) The apparatus according to claim 7,
wherein said reference switch circuit comprises:

a plurality of switches each (i) configured to receive at
least one of said plurality of reference voltages and (ii) coupled
5 to said reference output voltage.

11. (ORIGINAL) The apparatus according to claim 10,
wherein said plurality of switches are configured in response to
said output voltage.

12. (ORIGINAL) The apparatus according to claim 1,
wherein said plurality of reference voltages comprise bandgap
controlled voltages.

13. (CURRENTLY AMENDED) An apparatus comprising:

means for using a voltage generator circuit for selecting a reference output voltage from a plurality of reference voltages in response to a feedback signal; and

means for using a comparator circuit for generating an output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises accurately controlled hysteresis.

14. (CURRENTLY AMENDED) A method for providing accurate and controlled hysteresis comprising the steps of:

(A) using a voltage generator circuit for selecting a reference output voltage from a plurality of reference voltages in response to a feedback signal; and

(B) using a comparator circuit for generating an output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises accurately controlled hysteresis.

15. (ORIGINAL) The method according to claim 14, wherein step (A) further comprises:

switching between said plurality of reference voltages.

16. (ORIGINAL) The method according to claim 14, wherein step (A) further comprises:

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controlling a voltage level of said plurality of reference voltages.

17. (CANCELED)

18. (PREVIOUSLY PRESENTED) The method according to claim 14, wherein said feedback signal comprises said output voltage.

19. (ORIGINAL) The method according to claim 14, wherein step (B) is further responsive to voltage and temperature variations.

20. (ORIGINAL) The method according to claim 14, wherein step (A) further comprises the sub-steps of:

(A-1) summing a positive temperature coefficient and a negative temperature coefficient; and

5 (A-2) controlling a voltage level of said plurality of reference voltages.

21. (CANCELED)

22. (PREVIOUSLY PRESENTED) An apparatus comprising:

a first circuit configured to generate a reference output voltage in response to a plurality of reference voltages; and

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5 a second circuit configured to generate an output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein (i) said output voltage comprises accurately controlled hysteresis and (ii) said first circuit includes a summation circuit configured to control a voltage reference circuit in response to signals from a process
10 compensation circuit and a reference circuit.
